

FEB. 4.2000

2:20PM

FORT CROOK

NO. 952

P. 1/3

167846



US Army Corps
of Engineers
Omaha District

U.S. ARMY
CORPS OF ENGINEERS
FORT CROOK AREA



Phone: (402) 293-2500
Fax: (402) 281-8177

FORT CROOK AREA OFFICE
P.O. BOX 13287 BLDG #27
OFFUTT AFB, NEBRASKA 68113

Please deliver the following pages to:

NAME	Mike McAteer	PHONE	(212) 550-4071
COMPANY/OFFICE	USERA		

TSCN	5042		
DATE		# PAGES INCLUDING COVER	3

Mike

See attached cost summary.

Call w/ questions

[Signature]

**USACE RAPID RESPONSE
COST ANALYSIS
DEAD CREEK AND SITE M REMOVAL
TSCA CELL CONSTRUCTION vs T&D
February 4, 2000**

Costs for removal, processing, treating, and staging sediments is assumed to be approximately the same, regardless if an on-site TSCA landfill is constructed or the wastes are transported and disposed of offsite. As such, only the construction an on-site TSCA Landfill and transporting and disposing of the 50,000 cubic yards of waste are compared.

ASSUMPTIONS

Estimated Waste Volume:	50,000 yd ³
Average Fill Depth:	10 ft
Fill Area:	3 acres
Landfill Fingerprint Area:	5 acres

TSCA UNIT PRICES

Costs for below ground landfill, which is less than 5 acres, range between \$0.5 million to \$1million per acre. As material, equipment, and services are traditionally reasonably priced in this region, use average unit price of \$0.75 million per acre.

$$\Rightarrow (\$0.75\text{million/acre})(5\text{acres}) = \$3.75 \text{ million}$$

For above ground landfill, add \$0.2 million for fill material and construction to raise elevation of landfill two feet (assumed) as calculated below:

Fill Material Requirements

$$\begin{aligned} \Rightarrow (5\text{acres})(43,560 \text{ ft}^2/\text{acre})(2\text{ft depth}) &= 435,600 \text{ ft}^3 \\ \Rightarrow (435,600 \text{ ft}^3)(1 \text{ yd}/27 \text{ ft}^3) &= 16,133 \text{ yd}^3 \\ \Rightarrow (\$8/\text{ton clay fill material})(16,133 \text{ yd}^3)(1.25 \text{ tons}/\text{yd}^3) &= \$161,333 \text{ (burdened)} \end{aligned}$$

Construction Costs for Foundation Work

From Means Estimating Guide: Bare costs to compact backfill, 6" to 12" lifts (assumed), sheepfoot roller.

$$\Rightarrow (\$2.37/\text{yd}^3)(16,133 \text{ yd}^3) = \$38,235$$

Burdened costs include:

Raw Costs:	\$38,235
G&A (8%):	\$3,058
Subtotal:	\$41,294
Fee (6%)	\$2,477
Total:	\$43,771 (burdened)

TSCA Cost Summary

Landfill Construction: \$3.75 million
Fill Material: \$161,133
Construct Foundation: \$43,771
TOTAL COSTS: \$3,954,904

TRANSPORTATION AND DISPOSAL OF WASTES

Assume \$85 per ton for Transportation and disposal at subtitle C/TSCA permitted landfill.

Waste Volume: 50,000 yd³

$$\Rightarrow (\$85/\text{ton})(1.25 \text{ ton/yd})(50,000 \text{ yds}) = \$5,312,500$$

TOTAL COSTS: \$5,312,500

COST SUMMARY

TSCA LANDFILL TOTAL COSTS: \$4 million
T&D: \$5.3 million